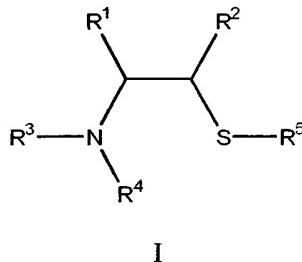


WHAT IS CLAIMED IS:

1. An aminothiol compound, having a general formula I,



wherein R¹-R⁵ are substitutable ligands; and

R¹ is aryl or alkyl of C2-C9;

R² is aryl or alkyl of C1-C9;

R³ is alkyl of C1-C9;

R⁴ is alkyl of C1-C9; or

R³, R⁴ and N form a cycle; and

R⁵ is H or alkyl of C1-C6.

13. The aminothiol compound as claimed in claim 1, wherein R³, R⁴ and N form a three-to-eight- membered heterocycle.

14. The aminothiol compound as claimed in claim 12, wherein R³, R⁴, O and N form a ring by means of morpholine.

15. The aminothiol compound as claimed in claim 1, wherein R³, R⁴, O and N form a ring by means of morpholine.

16. The aminothiol compound as claimed in claim 1, which are chiral ligands capable of reacting with organic metal compounds to form

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metal complexes and then react as alkylmetal with carbonyl compounds to produce chiral alcohols in asymmetric addition reactions.

17. The aminothiol compound as claimed in claim 16, wherein said carbonyl compound is aldehyde.

18. The aminothiol compound as claimed in claim 16, wherein said carbonyl compound is ketone.

19. The aminothiol compound as claimed in claim 16, wherein said organic metal is Zn, Cu, or Ti.